Chem 111L, Introduction to Chemistry I: General and Inorganic Chemistry Laboratory, Spring 2021
University of Tennessee, Martin

Basic Information:
Course Section: Chem 111L 051 and 052: CRN 20796 and 20797
Course Title: Introduction to Chemistry I: General and Inorganic Chemistry Laboratory
Meeting Time and Place: T 8:00, EPS 314
Course Credit Hours: 1 hrs
Textbooks and Other Required Materials:

Hartshorn, R.L. and Davis, P.H. Laboratory Manual for Introduction to Chemistry I: General Chemistry. University of Tennessee at Martin Chemistry Department, Martin TN

Faculty Contact Information for Dr. Phillip Shelton
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Office Hours: M 11:00-1:50
Phone: (731)881-7453
e-mail: pshelto2@utm.edu

Course Description:
Fundamental laws of chemistry including topics such as atomic and molecular structure, stoichiometry, chemical bonding, reaction equilibria, acids and bases, kinetics and nuclear chemistry. Experimental techniques in general and inorganic chemistry comprise the lab component. Thee hours lecture and one three-hour lab. A student should be registered for or have completed MATH 110 or 140 or a higher numbered mathematics course before registering for CHEM 111. CHEM 111 does not fulfill prerequisite requirements for any upper-division chemistry courses.

Course Resources:
You will be enrolled in a canvas course where notes and supplemental information will be made available.

Student Learning Outcomes/Objectives:
1. Students will demonstrate an understanding of the basic concepts in a discipline of science.
2. Students will demonstrate any or all of the following: the application of the scientific method, laboratory techniques, and/or data analysis for reasoning and problem solving.

Course Communications:
I will communicate with the class via official university e-mail.

Standard of Conduct:
When persons enroll in The University of Tennessee at Martin, they retain the rights and duties of a citizen. Additionally, they must assume the duties and observe the regulations imposed by the University community. Specific conduct attributes can be found: http://www.utm.edu/departments/conduct/conduct.php
Course Requirements/Expectations:
Course Requirements, Assessments, and Evaluations:
There will be thirteen separate experiments will be conducted each worth 20 points total (10 for the lab report and 10 for the quiz). You are responsible for reading each experiment thoroughly before coming to lab. Laboratory quizzes will be given each week on the lab you are going to complete that day. Your grade will be calculated from the following general equation.

\[
\text{Final} \% = \frac{\text{Total lab report points} + \text{Total quiz points}}{\text{Total possible points}}
\]

No makeup labs will be scheduled. If you miss a lab due to an excused absence (I will decide), Your other lab grades will be averaged together to replace the missed lab. If you know you are going to miss please let me know and you might be able to get into another lab during the week.

If you have more than three absences in the laboratory you can pass neither the lab nor the lecture.

University Policies:
Academic Integrity:
Academic integrity: Dishonesty, no matter the pressure on you, has no place at an institute of higher learning. If you are caught cheating I have the right to dismiss you from the class with a grade of “F” along with further academic disciplinary action as judged appropriate by Student Affairs. If you are not caught but are still cheating, then you should still be ashamed of yourself and rethink some of your life decisions. Specific integrity attributes can be found: [http://www.utm.edu/departments/conduct/new_academic_integrity.php](http://www.utm.edu/departments/conduct/new_academic_integrity.php)

Disability Services:
The University of Tennessee provides reasonable accommodations (academic adjustments and auxiliary aids) to ensure equal access to educational content and university programs for students with disabilities. Students who are eligible for and who request accommodations through the Disability Services office must provide instructors with a letter of accommodation. The Disability Services office is located in the Student Success Center, 203 Clement Hall, 731.881.7605.

Electronic devices:
You are allowed to have your cell phone in class, but it must be turned to silent or vibrate. If calculations are required for a test you must have a calculator for tests. Use of a cell phone calculator is not allowed due to internet access and camera features. In fact, on test days cell phones will be placed on the front desk. Possession of a phone during a test will be considered cheating and you will be given a grade of 0.

Inclement weather:
Missed labs will not be made up. The total points possible will omit that labs contribution.
<table>
<thead>
<tr>
<th>Date</th>
<th>Exercise</th>
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<tbody>
<tr>
<td>Jan 19</td>
<td>Check into lab, Safety in the Laboratory</td>
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<tr>
<td>Jan 26</td>
<td>Measurement: Mass and Volume</td>
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<tr>
<td>Feb 2</td>
<td>LabQuest Data Logger and Graphing with Logger Pro (You should complete Activity A as homework and bring the printed graph with you to lab)</td>
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<td>Feb 9</td>
<td>Density</td>
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<td>Feb 16</td>
<td>Periodic Table</td>
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<td>Feb 23</td>
<td>Constructing Chemical Hot and Cold Packs</td>
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<td>Mar 2</td>
<td>Counting by Weighing</td>
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<td>Mar 9</td>
<td>Titration of Vinegar</td>
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<td>Mar 16</td>
<td>Definite Proportions and Limiting Reagents</td>
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<tr>
<td>Mar 23</td>
<td>Gas Laws</td>
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<tr>
<td>Apr 6</td>
<td>Beer’s Law (prepare for Soil Respiration)</td>
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<td>Apr 13</td>
<td>Soil Respiration</td>
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<tr>
<td>Apr 20</td>
<td>pH and Buffers</td>
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<td>Apr 27</td>
<td>Checkout</td>
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Each lab will be due 11:59 pm the Friday after it was completed.

**REQUIRED SUPPLIES:**

*Laboratory Manual for Introduction to Chemistry I: General Chemistry*, Hartshorn and Davis

- Safety goggles or safety glasses – no one is allowed in laboratory without proper eye protection
- Scientific calculator (e.g., TI-84+/TI-84+SE) – bring your calculator with you to the first laboratory period and to all subsequent laboratory periods.

There is a departmental attendance policy for chemistry laboratory. The accumulation of more than three absences from laboratory in one semester will result in a grade of F being assigned for the course (not just the laboratory). Because the general chemistry laboratory is used for three separate courses and special set ups are needed for each course, it is not generally possible to make up a missed laboratory. However, if you miss a laboratory, it is your responsibility to contact the instructor to determine how the absence will be handled. You will still be held accountable for the material that was covered in the lab.
COVID-19 RESPONSE ITEMS

- Prelabs will be recorded each week. Be sure to watch them and read your lab book before you take the quiz. It is hazardous to come to chemistry lab unprepared.

- Quizzes will be posted at least a day before your lab meeting. It will be your ticket to lab. If you have not completed the lab quiz you cannot perform the lab.

- Face shields or goggles must be worn at all times. A face shield will be provided for you that only you will use this semester.

- Masks must be worn at all times. Since masks can trap harmful chemicals, disposable masks will be provided. If you choose to use your own mask during lab you must switch to a second mask and clean the first before reuse.

The use of personal laptop computers in laboratory is permitted, and, in fact, encouraged. If you wish to use your own computer, we will provide you with any special software required.